

In partnership with . . .

Westridge Energy, LLC

# Submetering ..... Energy Made Simple and Manageable

EnergyICT provides meter data collection, management, and processing software through **EIServer**® to meet the needs of government energy users. An open architecture is used to provide a highly scalable meter data warehouse and data collection system. The core objectives integrated into the design of **EIServer**® are flexibility, performance and traceability. **EIServer**® is a fully SOX compliant platform providing a complete history of all activity taking place in the system.

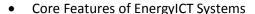
## The Benefits of Submetering: Discovering Your "Hidden Losses"

Submetering is a highly useful means of knowing how much energy is used for certain building loads and facilities. This information can serve a number of useful purposes and it helps more equitably allocate costs to certain service activities. Utility meters or data loggers can be used to help identify the "hidden losses" of energy. Energy managers have found, on average, that continuous commissioning and energy monitoring can save from 3-8% of energy use with simple, low cost means.

EnergyICT submetering clients around the world have demonstrated best practice energy monitoring and control methods. We support the largest retailer in the world, major airports and transit authorities, U.S. Defense Forces, and other federal and state administrative agencies on monitoring energy use and working to reduce energy cost.

## Join a World Class Energy Meter Data and Energy Management Community

- World Class Deployment
  - EnergyICT submetering and monitoring systems are used by world class commercial businesses, utilities, state authorities and federal agencies. Clients include: Utilities – Hydro Quebec,
    - Electricity de France, DTE Energy, Salt River Project; Commercial Retailers WalMart, Tesco (UK); state agencies --New York Power Authority, NY Metropolitan Transportation Authority; and Federal Government U.S. Department of Labor, Defense Department (Air Force and Navy, including Norfolk Naval Base. Community colleges including those in Virginia).



- Communication with all utility AMI/AMR meters
- Reads pulses off meters or data loggers
- Supports participation in demand response programs





- Roll up data to enterprise or capital complex monitoring covering all fuels and energy
- Automatic and manual data edits and validation
- Portal and dashboard services reporting kVar, kWh, demand, power factor, and natural gas and steam/hot water consumption.

#### **Communications**

Communications are available using customer's local Ethernet network with Internet access (LAN/WAN) or a cellular modem (GPRS).

### **Sub-metering**

- Collect data from existing pulse or ModBUS output at the building automation system, utility meter or other legacy system
- Real-time monitoring of facility loads
- The data logger has a full web interface and can be accessed directly over the WAN to modify device settings, verify data collection in true real-time (ModBUS registers update on a 10 second basis)

Data is available for reporting, graphing, aggregating, exporting, etc... as soon as it reaches the ElServer® database

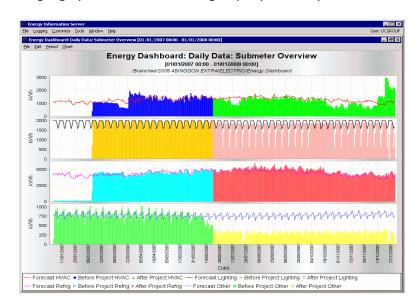
- Real time two-way communication
- Communication Mediums Choice

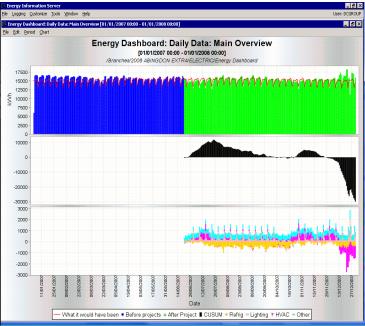
### **Energy Usage Tracking & Reporting**

Flow can be divided into three steps:

- All reporting is done on data that is stored in the oracle database. In order to allow flexible reporting, **ElServer**® is equipped with objects that can gather and combine virtually all data present in the database.
- •Queries perform calculations on the collected data and turn this data into information. Volume data for instance can be combined with pricing data to calculate the total cost.
- Visualization of results from the queries. **ElServer**® is equipped with powerful reporting tools that give the user the opportunity to display the information in numerous ways. Not only the standard table and graph, but also

geographical, combined and group reports are part of the standard ElServer® suite.





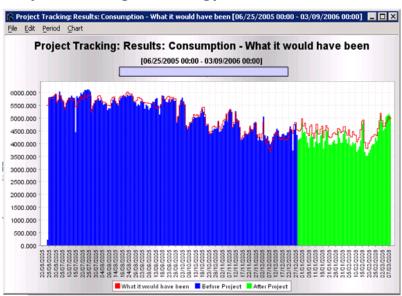
## **Creating reports in EIServer®**

- Reports and graphs can be viewed within **ElServer**® with no additional software.
- Quick and easy access to the reports and graphs through an intuitive user interface
  - Easy creation of ad hoc reports



- Access to reports and graphs can be restricted: user profiles determine which reports a user can view
- The time period can easily be adjusted for each report
- Graphs can be combined to generate composite graphs
- Graphs can be scaled and key elements can be edited (graph title, axis names...)
- Reports and graphs can be saved in a variety of formats; Adobe, Excel, etc...and emailed from ElServer®
- Automatic updates for a report can be set to every 1, 5, 15 or 60 minutes

## **Project Tracking and Energy Dashboards**



Project tracking gives customers the ability to continuously evaluate energy efficiency undertakings. Using historical load data collected, a multivariate regression model is used to represent the load prior to the energy efficiency treatment. The output of this model then compares to the current consumption to evaluate the savings.

### **Building Benchmarking**

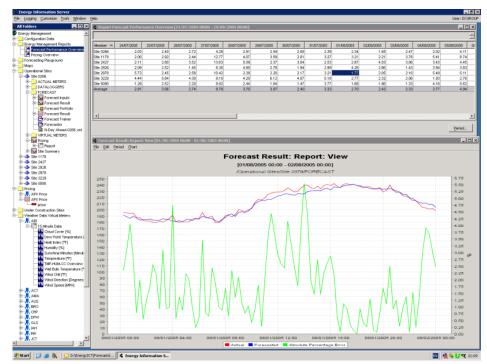
- Integration with external and third party applications
- Interface with Energy Star portfolio automatically based on a user-defined set of rules.

# **Cost Savings Calculations**

Evaluate whether or not their specific energy consumption and load shape can generate cost reductions either by switching to another supplier's rate or by reducing consumption for specific periods. Run the data for a location through different rate structures to determine base rate.

## **Load Forecasting**

- Next-day or long term forecasts of interval-by-interval energy consumption.
- Ability to predict when new



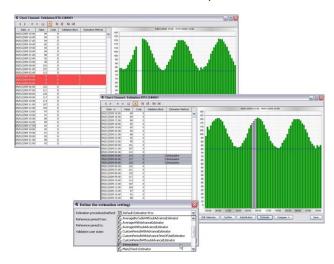


peaks are about to occur and take passive or active actions to reduce energy consumption.

• Incorporates an advanced regression and neural net algorithms that produce reliable results.

### Validation, Estimation and Editing

**EIServer**® comes standard with powerful validation capabilities that provide a high degree of flexibility in ensuring the meter data collected by the field hardware is accurate. The system will be configured with a central repository of approved validation algorithms that can be mixed and matched and assigned at the meter channel level to meet the validation requirements.



#### Web-Based User Interface

- Provide personalized dashboard view on the user's favorite items.
- Provide reporting management canvas for ad hoc reporting as well as interactively editing reports.
- Enabling Workflow related executions and follow-up of process cases and tasks

The **ElServer**® has activated all non-administrator functionality from the Administrator Full Client to the Web Client. The Web Client is utilized by:

- Energy managers requiring an overview of all energy consumption on their network
- Service engineers needing interaction with EIServer® Workflow and external Workflow systems
- Energy consumers seeking easily accessible and understandable reports

## **Additional Functionality**

- Open standards, multivendor protocol
- Data storage and integrity
- Demand Response
- SaaS model solution
- Flexible communications
- Down to 20 second reads on equipment
- Multiple fuel and water measurement and reporting
- Greenhouse gas reporting/sustainability measurement
- EM&V
- LEED certification
- Energy Star Portfolio Manager Support
- Building baselining and cost allocation.

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